

Minor psychiatric morbidity in employed young men and women and its contribution to sickness absence

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ABSTRACT An epidemiological survey of male and female executive officers in the Civil Service showed a prevalence of 33% of minor psychiatric disorders. Follow up one year later found that only half were better. The presence of minor psychiatric disorder was associated with increased rates of sickness absence, particularly certified absence. Such a high prevalence, associated as it is with handicap to the individual and consequences for the working environment, indicates the need for early medical detection and treatment.

The extent of minor psychiatric morbidity in the general adult population has been charted in surveys of general practice^{1,2} and in community surveys.³⁻⁵ Reported prevalence rates are high, varying from 10% to 30%² and underline the importance of assessing not only the cost of psychiatric morbidity to the individual in terms of distress and associated handicap but also how far such morbidity has wider consequences for the working environment in which such individuals may be employed.

The practical importance of measuring the extent of minor psychiatric morbidity in the adult working population and estimating its impact on sickness absence, work performance, relationship with colleagues, accidents, and labour turnover has been recognised for some time,⁶⁻¹⁰ and there is a pressing need to evaluate occupational mental health services and provisions. Research in this field, however, remains scant.¹¹

Some progress has now been made towards resolving the difficulties noted by Lewis⁷ in undertaking psychiatric research in occupational settings. Reliable, standardised, and structured psychiatric instruments have been developed that are acceptable to individuals in non-hospital settings who may not perceive themselves as ill¹²⁻¹⁴ and which function adequately in working environments and are short enough to be used within working hours.¹⁵⁻¹⁷

The present report describes the prevalence and outcome of psychiatric disorder in a young white collar population and its estimated contribution to both retrospective and prospective sickness absence,

using modern epidemiological methods of assessment.

Methods

STUDY POPULATION

The study was carried out on the direct entrant executive officer grade in the Home Office. The Home Office is a traditional hierarchical bureaucracy where executive officers form the core of the administration group of the Home Civil Service and carry out regular work in government departments according to laid down policy. This includes dealing with cases in accordance with Acts of Parliament, regulations, and previous practice; dealing with inquiries by correspondence or by interview in the office; financial accounting and auditing; inspecting and enforcing legislation; advising the public, industry, and members of government organisations; stores accounting; giving ministerial, professional, scientific, technical, or statistical support; providing common services such as registry, the communications systems or accommodation services, personnel management; and programming and operating computers.¹⁸

At the time of the study, executive officers were considered on merit for promotion to higher executive officers after four years' service as executive officer, and to senior executive officer after three years' service as higher executive officer. Direct entrant executive officers all have either "A" levels or first degrees, they are selected according to the results of an examination, and there is no selection or job allocation on the basis of sex. The age group 20-35 was studied, and only those individuals who had been executive officers for less than ten years

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were included. These employees were distributed through 11 buildings in central London, Croydon, and Tolworth. Prisons were excluded.

Permission for the study was obtained from the senior establishment and from the staff society. A letter was then sent from the assistant under-secretary of state, establishment office, to each eligible executive officer, outlining the purpose of the study and enclosing a consent form for volunteers. The names of all respondents were then given to me.

INITIAL ASSESSMENT OF MORBIDITY

Psychological illness

Psychological illness was detected and assessed in two stages. Firstly, a screening instrument, the general health questionnaire^{14, 19} was distributed to all respondents. This questionnaire indicates the likely presence or absence of so called minor psychiatric morbidity—that is, depressions and anxiety states. It was not expected that the more severe forms of mental illness, such as manic depressive psychosis or schizophrenia, would be found in this working population, although, in practice, the general health questionnaire has been shown to detect major psychoses. Secondly, the questionnaire was followed up, in a large sample of individuals, by the reference test, the clinical interview schedule,^{12, 13} a psychiatric interview that explores common psychological symptoms to establish their onset, duration, severity, and frequency. The interviews were all carried out by me, a research psychiatrist, in privacy, in the relevant buildings of the Home Office.

Sickness absence

The Home Office establishment department keeps detailed records of all certified and uncertified absence of the executive officers, recording the reason for absence where such a reason is supplied. The respondents gave permission for me to examine their absence records. Sickness absence data were extracted for all interviewed respondents for the 12 months preceding the initial assessment. This is termed “retrospective absence.” Absence data were recorded in terms of frequency and severity of both certified and uncertified absence.

FOLLOW UP ASSESSMENT OF MORBIDITY

Psychological illness

Twelve months after the initial assessment, a follow up was carried out on all those who had been interviewed on the first occasion. Individuals completed a second general health questionnaire and the clinical interview schedule was readministered to all those who had been assessed as suffering from clinically significant psychiatric morbidity on the first occasion.

Sickness absence

Sickness absence records were extracted for the 12 months after the initial assessment for everyone who had received the first interview. This is termed “prospective absence.”

Results

SIZE OF SAMPLE, RESPONSE RATE, AND REASONS FOR REFUSAL

There were 252 male and 163 female executive officers in the Home Office in central London who fulfilled the criteria for entry into the study. Of these, 190 men and 138 women agreed to participate and filled in the general health questionnaire, giving an overall response rate of nearly 81% (table 1). The reported reasons for refusal are described elsewhere.¹⁶

PREVALENCE OF MINOR PSYCHIATRIC MORBIDITY

All respondents completed the general health questionnaire, but only a proportion of these received clinical interviews. Sixty of the 183 male respondents were GHQ positive (probable “cases”) as were 51 out of 138 female respondents (table 2). Although I tried to interview all these, eight men and six women were unavailable for interview, either because they had been seconded to a government department outside the Home Office or because they were on extended special leave without pay.

The remaining 97 GHQ positive men and women received the standardised clinical interview, the clinical interview schedule. A 1-in-2 random sample of all the GHQ negatives (probable “non-cases”) was drawn. Of these, 15 were unavailable for interview through secondment or special leave. The remaining 52 men and 35 women also received the standardised clinical interview. Table 3 shows the proportions of interviewees who were judged to be suffering from clinically significant psychiatric morbidity.

The prevalence of minor psychiatric morbidity (MPM) is calculated from the formula: prevalence = (proportion of true cases among GHQ positives) × (proportion of GHQ positives among total respondents) + (proportion of true cases among

Table 1 *Response rate*

	Men	Women	Total
Total No of eligible executive officers	230	167	397
Total No of respondents	183	138	321
Response rate (%)	79.57	82.63	80.86

Table 2 *Distribution of "probable" cases and "probable" non-cases of minor psychiatric morbidity (general health questionnaire positives and GHQ negatives) in the sample*

	Men			Women		
	GHQ-	GHQ+	Total	GHQ-	GHQ+	Total
Interviewed	52	52	104	35	45	80
Non-interviewed	71	8	79	52	6	58
All respondents	123	60	183	87	51	138

GHQ negatives) \times (proportion of GHQ negatives among total respondents).

For men, substituting into the equation above,

$$\text{prevalence of MPM} = \frac{35}{52} \times \frac{60}{183} + \frac{11}{52} \times \frac{123}{183} = 0.36.$$

For women,

$$\text{prevalence of MPM} = \frac{33}{45} \times \frac{51}{138} + \frac{4}{35} \times \frac{87}{138} = 0.34.$$

PRESENTATION OF PSYCHIATRIC ILLNESS

The distribution of psychiatric symptoms in the study population is reported in table 4 where the data have been weighted to extrapolate from the interviewed subsample to the whole sample of respondents.¹⁶⁻²⁰ It can be seen that psychiatric symptoms were common in the respondents. The most frequently occurring symptoms were depression, somatic symptoms of psychological origin, anxiety, fatigue, lack of concentration, and irritability. Symptoms such as excessive concern with bodily health, sleep disturbance, phobias, and obsessional thoughts and activities were relatively less common, although still occurring in a substantial proportion of the population. Depersonalisation and derealisation were rare. The only important difference between the sexes was in the rate of somatic symptoms of psychological origin which were more than twice as frequent in women as in men (table 4).

The most common psychiatric diagnosis I made was depression. There were no pronounced differences in the diagnostic distribution between the sexes (table 5).

Although the overall prevalence of psychological illness was high, I considered that only a small proportion (2-3%) needed to be treated with drugs or referred to a psychiatrist (table 6). There were no

pronounced differences in the overall severity rating between the sexes.

OUTCOME OF MINOR PSYCHIATRIC MORBIDITY AFTER 12 MONTHS

All those who had been assessed as clinical cases at the first interview were examined again a year later to see whether they had improved or not (table 7).

Table 4 *Frequency of psychiatric symptoms reported at the first clinical assessment (weighted to represent all respondents)*

Symptoms	Men No (%)	Women No (%)
Somatic symptoms of psychogenic origin	24 (13.3)	46 (33.1)
Excessive concern about bodily health	19 (10.2)	23 (16.4)
Fatigue	54 (29.3)	51 (36.7)
Sleep	27 (14.7)	21 (15.1)
Irritability	39 (21.6)	36 (26.4)
Lack of concentration	68 (37.0)	37 (26.9)
Depression	51 (28.0)	54 (38.9)
Depressive thoughts	44 (24.1)	37 (26.9)
Anxiety	63 (34.5)	44 (32.2)
Phobias	23 (12.8)	21 (15.6)
Obsessions	34 (18.5)	22 (16.2)
Depersonalisation	16 (8.9)	8 (6.1)
Total	183	138

Between the first and second assessment, 20 individuals had left the service. When these are excluded, the recovery rate was 45.9% for women and 54.5% for men; this difference was not statistically significant.

ASSOCIATION OF MINOR PSYCHIATRIC MORBIDITY WITH SICKNESS ABSENCE

When the sickness absence files of the employees

Table 3 *Relation of the results of the screening test (general health questionnaire) with the reference test (clinical interview schedule) in interviewed male and female executive officers*

CIS-status	Men			Women		
	Non-case	Case	Total	Non-case	Case	Total
GHQ-negative	41	11	52	31	4	35
GHQ-positive	17	35	52	12	33	45
Total	58	46	104	43	37	80

Table 5 *Frequencies of psychiatric diagnoses made at the first clinical assessment (weighted to represent all respondents)*

Diagnosis	Men No (%)	Women No (%)	Total No (%)
None	106 (58.00)	76 (55.04)	183 (56.09)
Anxiety	17 (9.06)	7 (5.01)	24 (7.06)
Depression	52 (28.06)	46 (33.05)	99 (30.07)
Other	7 (3.08)	8 (6.01)	15 (4.08)
Total	138 (100)	183 (100)	321 (100)

were examined, none of the relevant episodes of absence had been officially attributed, either by the certifying general practitioner or by the employee, to overt psychiatric reasons. Analysis, however, shows that the presence of psychiatric morbidity (as assessed by the research psychiatrist) was associated with an increased rate of both retrospective and prospective absence.

The relation between minor psychiatric morbidity and sickness absence is examined here by presenting the means (and standard deviations) of the various absence parameters for those who were not judged to be psychiatric cases at first or second assessments (non-case→non-case); those who were initially cases but were better 12 months later (case→non-case); those who were initially well but 12 months later were judged to be cases (non-case→case); and those who were cases at both assessments (case→case). Overall, those who were well at both assessments took substantially less absence, both certified and uncertified, both in terms of frequency and duration than those who were cases at either or both assessments. The increase in absence associated with the presence of minor psychiatric morbidity is particularly pronounced for certified absence, and is related more to duration than frequency (table 8).

Interestingly, the more chronic cases—that is those who were cases at both assessments—did not take more absence than more acute cases, those who were initially cases and then improved, and those who were initially well and then became cases. Indeed, the acute cases generally took more absence than the chronic cases. Looking at those who were well at both assessments (tables 9 and 10), women

Table 7 *The 12 month outcome of minor psychiatric morbidity in male and female executive officers who had been diagnosed as "cases" at the first clinical assessment (weighted to represent all respondents)*

Clinical state after 12 months	Men No (%)	Women No (%)
Non-case	36 (54.5)	22 (45.9)
Case	30 (45.5)	26 (54.1)

took more absence than men but both sexes increased their absence when ill. The sex difference, however, particularly in certified absence, was reversed in those who were ill at both assessments: chronically ill men take more absence than chronically ill women. It seems that the presence of minor psychiatric illness has more effect on the absence of men than on the absence of women. It is noticeable that whereas the more acute female cases (those who were initially ill and then improved, and those who were initially well and then became ill) have longer periods of absence than do the minor chronic female cases, there is little difference between the male acute and chronic cases. It is, therefore, hypothesised that change in symptomatology is a more important predictor of sickness absence in women than in men, whereas severity of symptomatology is a more important predictor of sickness absence in men.

Discussion

PREVALENCE OF MINOR PSYCHIATRIC MORBIDITY

Industrial policy makers, scientists, and the informed public have, until recently, concentrated their attention on three major work related areas: unemployment, physical and chemical health hazards, and absenteeism.²¹ Mental illness in the workforce has been of subsidiary interest, and attention has largely focused on the separate issues of whether work is an aetiological factor in mental illness²² and on the rehabilitation of the mentally ill.²³ Nevertheless, whether or not work is a potent cause of mental illness,²⁴ the sheer prevalence of mental

Table 6 *Severity of minor psychiatric morbidity recorded at the first clinical assessment (weighted to represent all respondents)*

Rating	Men No (%)	Women No (%)	Total No (%)
Symptom free	99 (54.01)	79 (57.00)	178 (55.04)
Subclinical symptoms	21 (11.05)	18 (13.00)	39 (12.01)
Clinical case	56 (30.05)	40 (29.02)	96 (30.00)
Case requiring treatment and possible specialist treatment	7 (3.08)	1 (0.08)	8 (2.05)
Total	183 (100)	138 (100)	321 (100)

Table 8 *Relation between the frequency and duration of certified and uncertified sickness absence and the presence and progress of minor psychiatric morbidity in interviewed male and female executive officers. (Means (and standard deviations))*

Men and women	Non-case→non-case (n = 72)	Case→non-case (n = 47)	Non-case→case (n = 29)	Case→case (n = 36)	F	p
12 months retrospective absence						
Uncertified spells	1.56 (1.48)	2.15 (2.14)	2.07 (2.0)	2.00 (1.76)	1.29	0.28
Uncertified days	1.99 (1.91)	2.79 (2.80)	2.62 (2.56)	2.56 (2.37)	1.30	0.27
Certified spells	0.36 (0.79)	0.96 (1.40)	0.93 (1.19)	0.69 (1.26)	3.32	0.02
Certified days	1.33 (2.87)	10.61 (29.61)	8.76 (15.76)	3.33 (6.61)	3.58	0.01
Total spells	1.90 (1.96)	3.06 (2.97)	3.00 (2.55)	2.69 (2.55)	2.71	0.05
Total days	3.31 (3.87)	13.36 (29.31)	11.41 (16.19)	5.89 (7.87)	4.07	0.008
12 months prospective absence						
Uncertified spells	1.76 (1.83)	1.62 (2.00)	2.28 (1.67)	1.94 (1.79)	0.85	0.47
Uncertified days	2.47 (2.56)	2.43 (3.09)	3.10 (2.50)	2.58 (2.41)	0.46	0.71
Certified spells	0.24 (0.49)	0.87 (1.21)	0.93 (1.31)	0.61 (0.99)	5.81	0.0008
Certified days	1.64 (5.73)	6.08 (13.83)	5.59 (10.80)	3.56 (6.42)	2.56	0.005
Total spells	1.96 (1.99)	2.49 (2.74)	3.21 (2.51)	2.39 (2.38)	1.99	0.12
Total days	4.04 (6.50)	8.47 (14.39)	8.69 (11.52)	5.97 (7.41)	2.50	0.06

Table 9 *Relation between the frequency and duration of certified and uncertified sickness absence and the presence and progress of minor psychiatric morbidity in interviewed male and female executive officers. (Means (and standard deviations))*

Women	Non-case→non-case (n = 32)	Case→non-case (n = 20)	Non-case→case (n = 11)	Case→case (n = 17)	F	p
12 months retrospective absence						
Uncertified spells	1.72 (1.40)	2.20 (1.58)	2.36 (1.91)	2.06 (1.85)	0.62	0.61
Uncertified days	2.13 (1.66)	2.80 (2.19)	3.36 (2.65)	2.65 (2.57)	1.03	0.38
Certified spells	0.50 (0.95)	1.25 (1.74)	1.18 (1.54)	0.47 (0.62)	2.26	0.09
Certified days	2.00 (3.57)	19.40 (44.01)	6.91 (9.27)	1.65 (2.69)	2.90	0.04
Total spells	2.22 (1.99)	3.40 (2.56)	3.55 (2.62)	2.53 (2.00)	1.68	0.18
Total days	4.13 (4.55)	22.15 (43.23)	10.27 (9.54)	4.29 (4.16)	3.12	0.03
12 months prospective absence						
Uncertified spells	2.31 (2.04)	1.25 (1.52)	2.36 (1.75)	2.18 (1.78)	1.63	0.19
Uncertified days	3.13 (2.89)	2.10 (2.81)	3.09 (2.55)	3.00 (2.67)	0.63	0.59
Certified spells	0.34 (0.60)	0.75 (1.21)	1.18 (1.54)	0.23 (0.75)	2.91	0.04
Certified days	2.84 (8.27)	7.15 (18.72)	5.64 (7.51)	0.76 (2.48)	1.20	0.32
Total spells	2.59 (2.21)	2.00 (2.12)	3.54 (3.01)	2.06 (2.05)	1.31	0.28
Total days	5.84 (8.92)	9.25 (18.54)	8.73 (9.30)	3.41 (4.29)	0.95	0.42

Table 10 *Relation between the frequency and duration of certified and uncertified sickness absence and the presence and progress of minor psychiatric morbidity in interviewed male and female executive officers. (Means (and standard deviations))*

Men	Non-case→non-case (n = 40)	Case→non-case (n = 27)	Non-case→case (n = 18)	Case→case (n = 19)	F	p
12 months retrospective absence						
Uncertified spells	1.43 (1.55)	2.11 (2.50)	1.89 (2.03)	1.95 (1.71)	0.77	0.51
Uncertified days	1.88 (2.10)	2.78 (3.21)	2.17 (2.43)	2.47 (2.25)	0.75	0.53
Certified spells	0.25 (0.63)	0.74 (1.06)	0.78 (0.94)	0.89 (1.63)	2.37	0.08
Certified days	0.80 (2.05)	4.11 (5.67)	9.89 (18.84)	4.84 (8.56)	4.18	0.008
Total spells	1.65 (1.92)	2.81 (3.27)	2.67 (3.27)	2.84 (3.00)	1.53	0.21
Total days	2.65 (3.13)	6.85 (7.73)	12.11 (19.42)	7.32 (10.03)	3.83	0.01
12 months prospective absence						
Uncertified spells	1.33 (1.53)	1.89 (2.29)	2.22 (1.66)	1.73 (1.82)	1.15	0.33
Uncertified days	1.95 (2.17)	2.67 (3.33)	3.11 (2.54)	2.21 (2.15)	0.99	0.40
Certified spells	0.15 (0.36)	0.96 (1.22)	0.78 (1.17)	0.78 (1.17)	5.48	0.002
Certified days	0.68 (1.82)	5.30 (9.00)	5.56 (12.61)	6.05 (7.79)	3.33	0.02
Total spells	1.45 (1.65)	2.85 (3.11)	3.00 (2.22)	2.68 (2.66)	2.85	0.04
Total days	2.60 (2.98)	7.89 (10.69)	8.67 (12.95)	8.26 (8.87)	3.44	0.02

disorder²⁵ in employees makes it an important issue in its own right.

The present study has taken advantage of the development of modern epidemiological methods of detecting psychiatric illness to estimate the preval-

ence of minor psychiatric morbidity in a young white collar population, and the findings indicate that minor psychiatric morbidity is a substantial cause of illness among young executive officers.

The prevalence of minor psychiatric morbidity

found in these executive officers (33%) is as high as that found in industrial workers,²⁵ pharmacists and dispensers,¹⁵ Canadian air traffic controllers,²⁶ and journalists¹⁷ during periods of occupational stability. During a period of occupational instability, prevalence rates may be higher, MacBride *et al* reporting a rate of over 40% during a labour dispute²⁶ and Jenkins *et al* reporting rates of over 37% during and immediately after a period of threatened redundancy.¹⁷ Such prevalence rates are as high as those found in studies of general practice attenders,² rather higher than those found in community surveys,³ and much higher than those found in studies deriving figures from general practitioner certification^{27,28} or diagnosis by non-psychiatric physicians of attenders at occupational clinics.²⁹

The reasons for the discrepancy between studies using direct psychiatric examination of the workforce and studies relying on general practitioner certification are not hard to find.

Epidemiologists are aware that rates of diagnosed or treated illness are underestimates of rates of illness in the entire population, since they are affected by the individual's readiness to recognise illness in himself and to seek medical care for his symptoms, by the availability of medical services, and by the primary care physician's ability to diagnose illness and treat it. General practitioners' certificates are notoriously unreliable,³⁰ and it is known that between a third and a half of psychiatric disorder presenting in general practitioners' surgeries remains undetected by the general practitioner.³¹ In addition, since some stigma and discrimination may accrue to receipt of a psychiatric diagnosis, the general practitioner may avoid writing such a diagnosis on the certificate of an employed person, and probably, therefore, figures derived from general practitioners' certificates are considerable underestimates of the extent of minor psychiatric morbidity in the workforce. This issue is discussed further below.

OUTCOME OF MINOR PSYCHIATRIC MORBIDITY

The present study found that 55% of the men and 46% of the women were better after 12 months. This sex difference in outcome was not statistically significant. The magnitude of the improvement after 12 months and the absence of a sex difference is also found by Mann *et al* and by Kedward in two general practice studies.^{32,33} I am unaware of outcome data from occupational studies of minor psychiatric morbidity.

CONTRIBUTION OF MINOR PSYCHIATRIC MORBIDITY TO SICKNESS ABSENCE

In previous studies two different methods have been used to determine the contribution of psychiatric

disorders to sickness absence. The first method is based on the examination of the diagnoses given by general practitioners on sickness certificates.^{27,28,34} The reasons why the figures thus derived are underestimates have already been discussed.

The second method, used by Fraser, is based on the retrospective attribution of spells of absence to neurosis made by research doctors on the basis of lengthy personal interviews with the subjects, and access to their medical records.²⁵ Using this method, Fraser and his collaborators found that neurotic illness caused between a quarter and a third of all absence from work. Such a method avoids the major disadvantages associated with simply basing estimates on sickness certificates. The method, however, is based on the notion that an episode of sickness absence may indeed be attributed to one particular cause, and it ignores the overwhelming evidence that most absence is voluntary behaviour that has been shown to be affected not only by demographic and environmental factors but also by the individual's attitude to his work as well as by the presence or absence of a physical or psychological disorder.³⁵ I have made no attempt to attribute one particular episode of absence to any one cause, but rather to make comparisons of the annual absence taken between individuals with identified minor psychiatric morbidity and those without. Using this method, it was found that the presence of minor psychiatric morbidity does make an important contribution to both retrospective and prospective sickness absence, and that this contribution is greater for certified absence than for uncertified absence, and is greater for duration than frequency of absence.

Similar results have been reported by Ferguson who found that telegraphists and mailsorters who had suffered neurosis at some time during their service with an Australian mail communications organisation had a greater frequency of certified absences in the preceding two and a half years but no greater frequency of uncertified absences.³⁶

POSSIBLE REASONS FOR THE RELATIVELY LOW FREQUENCY OF PSYCHIATRIC DISORDER RECORDED ON SICKNESS ABSENCE CERTIFICATES

Since there is such a discrepancy in the prevalence rates derived from studies based on general practitioners' absence certificates and studies based on direct interview, it is useful to discuss some of the reasons for this discrepancy.

Depressed patients often offer physical symptoms to their general practitioner for diagnosis and treatment instead of their psychological complaints. This phenomenon may occur because patients believe

that their doctors expect to hear about physical complaints. Nevertheless, several alternative explanations may also contribute.³⁷ A patient may have had a physical symptom for some time but, in a period of emotional stress and, perhaps, depression, the physical symptom may seem to worsen and is presented as the main complaint instead of the emotional problems. Depressed patients are often more introspective than usual and examine their internal body sensations more closely than they would normally. There is still a stigma attached to psychiatric illness, and it is more socially acceptable to have a physical than a psychiatric illness. Friends, relatives, and general practitioners often share this view. Depression may be secondary to a painful or worrying physical illness or symptom and whereas it is then appropriate for the patient to offer the physical problem to the general practitioner, the onus remains on the general practitioner to be aware of the likelihood of the secondary depression, to detect it, and offer appropriate treatment.

In addition to these phenomena, there is also a real association of physical illness with psychiatric illness. Eastwood and Trevelyan demonstrated this primary association in a London group practice during a health screening programme on 1470 individuals who received psychiatric and physical examinations in a carefully designed study of a random sample of a general practice population, using independent assessments of the physical and psychiatric states with objective methods and strict criteria for diagnosis.³⁸ The authors found that individuals with psychiatric disorder had a significant excess of ischaemic heart disease over controls. The psychiatric disorder could not be secondary to worry over the heart disease, since most individuals had not experienced angina and had no idea that they had ischaemic heart disease. In addition, psychiatric cases had a significant excess of other physical disorders over the control group. Thus 17% of the psychiatric group had two major plus several minor physical conditions, compared with only 2.4% of the controls.

The general practitioner detects only a half to two thirds of psychiatric illness presenting in his surgery,¹² and probably such rates of detection may also occur in the occupational health services.²⁹ Should this level of detection be improved? Is the outcome of conspicuous psychiatric morbidity better than that of hidden morbidity? Goldberg and Blackwell showed that patients with "hidden" illnesses have as many symptoms as those with "conspicuous" illness, and that hidden illnesses do not have a better prognosis.¹² Johnstone and Goldberg showed that if a family doctor were made aware of these hidden illnesses, then the patients were more

likely to improve more quickly and would have fewer symptoms when seen at follow up a year after initial consultation.³¹

IMPLICATIONS FOR THE OCCUPATIONAL HEALTH SERVICES

The prevalence of minor psychiatric morbidity found in this working population and in other occupational studies raises the issue of how far occupational medical services should concern themselves with detection, treatment, and prevention of minor psychiatric morbidity. Certainly, most of the illnesses detected by the research psychiatrist were not particularly severe in that most were regarded as being within the province of the general practitioner, and none was deemed to require inpatient care. Half of the illnesses, however, lasted for longer than 12 months, and the study showed that minor psychiatric illness is associated with handicapping and costly consequences in terms of increased rates of sickness absence. Furthermore, there are indications that the mental health of an employee may be an important determinant of his performance,⁹ job satisfaction,²⁴ relation with colleagues and management,³⁹ and accidents.⁴⁰ It would seem that there are persuasive arguments why occupational medical services should make provision for the high prevalence of minor psychiatric disorder, despite the fact that they are not a common diagnostic category in sickness absence certificates.

Pre-employment screening to avoid employment of potentially unstable individuals is unlikely to provide a solution because most minor psychiatric illnesses are discrete episodes with no premonitory signs that might be detected perhaps years before the development of symptoms. If pre-employment screening did detect the presence of a depressive illness or an anxiety state, to exclude such a person from the workforce might be to lose a potentially productive and able worker who might not have another episode of psychological disturbance. Compulsory medical retirements for individuals who are ill are costly and include the expense of finding and training a replacement.

Traditionally, employers have argued that mental health problems are the responsibility of the individual and not of the company. Underlying this belief is the assumption that mental health problems arise independently of the job.⁴¹ Whatever the origins of mental illness in the workforce, mental health problems are costly to employers and mental health programmes instituted in American companies have shown that it is possible to minimise their cost by early detection and treatment.^{42 43}

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References

- ¹ Shepherd M, Cooper B, Brown AC, Kalton GW. *Psychiatric illness in general practice*. London: Oxford University Press, 1966.
- ² Goldberg D, Huxley P. *Mental illness in the community. The pathway to psychiatric care*. London: Tavistock Publications, 1980.
- ³ Henderson S, Byrne DG, Duncan-Jones P. *Neurosis and the social environment*. Sydney: Academic Press, 1981.
- ⁴ Comstock GW, Helsing KJ. Symptoms of depression in two communities. *Psychol Med* 1976; **6**:551-63.
- ⁵ Bebbington P, Hurry J, Tennant C, Sturt E, Wing JK. Epidemiological of mental disorders in Camberwell. *Psychol Med* 1981; **11**:1-18.
- ⁶ Ferguson CA, Fersing JE, Allen AT, et al. *The legacy of neglect: an appraisal of the implications of emotional disturbances in the business environment*. Fort Worth, Texas: Industrial Mental Health Association, 1965.
- ⁷ Lewis A. Research in occupational psychiatry. *Folia Psychiatrica, Neurologica et Neurochirurgica Neerlandica* 1953; **56**:779-86.
- ⁸ Culpin M, Smith M. *The nervous temperament*. London: HMSO, 1930. (Industrial Health Research Board report No 61).
- ⁹ Markowe M. Occupational psychiatry: an historical survey and some recent researches. *Journal of Mental Science* 1953; **99**:92-102.
- ¹⁰ Taylor PJ. Aspects of sickness absence. In: Ward Gardner A, ed. *Current approaches to occupational health*. London: John Wright & Sons, 1979:322-38.
- ¹¹ Murphy HBM. The decline of industrial psychiatry. *Psychol Med* 1973; **3**:405-10.
- ¹² Goldberg DP, Blackwell B. Psychiatric illness in general practice. A detailed study using a new method of case identification. *Br Med J* 1970; **ii**:439-43.
- ¹³ Goldberg D, Cooper B, Eastwood M, Kedward HB, Shepherd M. A standardised psychiatric interview for use in community surveys. *Br J Prev Soc Med* 1970; **24**:18-23.
- ¹⁴ Goldberg DP. *Detecting psychiatric illness questionnaire*. London: Oxford University Press, 1972. (Maudsley monograph 21.)
- ¹⁵ Jenkins R. Minor psychiatric morbidity in employed men and women and its contribution to sickness absence. Preliminary communication. *Psychol Med* 1980; **10**:751-7.
- ¹⁶ Jenkins R. *Some epidemiological observations of minor psychiatric morbidity*. Cambridge: University of Cambridge, 1983. (MD thesis.)
- ¹⁷ Jenkins R, Macdonald A, Murray J, Strathdee G. Minor psychiatric morbidity and the threat of redundancy in a professional group. *Psychol Med* 1982; **12**:799-807.
- ¹⁸ Civil Service Commission. *Executive officer appointments*. London: HMSO, 1979.
- ¹⁹ Goldberg D. *Manual of the general health questionnaire*. Windsor: Windsor National Foundation for Education Research, 1978.
- ²⁰ Jenkins R. Sex differences in minor psychiatric morbidity. *Psychol Med* (in press). (Monograph.)
- ²¹ Kasl SV. Epidemiological contributions to the study of work stress. In: Cooper CL, Payne R, eds. *Stress at work*. London: John Wiley & Sons, 1978:3-48.
- ²² Cooper CL, Payne R, eds. *Stress at work*. London: John Wiley & Sons, 1978.
- ²³ Wansbrough N, Cooper P. *Open employment after mental illness*. London: Tavistock, 1980.
- ²⁴ Kasl SV. Mental health and work environment: and experiment of the evidence. *J Occup Med* 1973; **15**:509-18.
- ²⁵ Fraser R. *The incidence of neurosis among factory workers*. London: HMSO, 1947. (Industrial Health Research Board report No 90.)
- ²⁶ Macbride A, Lancee W, Freeman SJJ. The psychosocial impact of a labour dispute. *Journal of Occupational Psychology* 1981; **54**:125-33.
- ²⁷ Bashford H. Some aspects of sick absence in industry. *Journal of the Royal Sanitary Institute* 1940; **60**:360.
- ²⁸ Gafefer WM. *Manual of industrial hygiene*. Philadelphia and London: WB Saunders Co, 1943. (Quoted in R Fraser (1947).²⁵)
- ²⁹ Rosen BM, Locke BZ, Goldberg ID, Babigian HM. Identifying emotional disturbance in persons seen in industrial dispensaries. *Mental Hygiene* 1970; **54**:271-9.
- ³⁰ Morris JN. Sickness absence: return to work? *Proc R Soc Med* 1965; **58**:821-5.
- ³¹ Johnstone A, Goldberg D. Psychiatric screening in general practice. *Lancet* 1976; **i**:605-8.
- ³² Mann AH, Jenkins R, Belsey E. The twelve month outcome of patients with neurotic illness in general practice. *Psychol Med* 1981; **11**:535-50.
- ³³ Kedward H. The outcome of neurotic illness in the community. *Social Psychiatry* 1969; **4**:1-4.
- ³⁴ Wyatt S. *A study of women on war work in four factories*. London: HMSO, 1945. (MRC Industrial Health Research Board report No 88.)
- ³⁵ Johns G, Nicholson N. The meanings of absence: new strategies for theory and research. In: Staw BM, Cummings LL, eds. *Research in organisational behaviour*. Greenwich: CT:JAI Press, 1982.
- ³⁶ Ferguson D. A study of neurosis and occupation. *Br J Ind Med* 1973; **30**:187-98.
- ³⁷ Jenkins R, Shepherd M. Mental illness and general practice. In: Bean P, ed. *Mental illness: changes and trends*. London: John Wiley & Sons, 1983.
- ³⁸ Eastwood MR, Trevelyan MH. Relationship between physical and psychiatric disorder. *Psychol Med* 1972; **2**:363-72.
- ³⁹ Tredgold RF. Mental hygiene in industry. In: Harris NG, ed. *Modern trends in psychological medicine*. London: Butterworth, 1948.
- ⁴⁰ Adler A. The psychology of repeated accidents in industry. *Am J Psychiatry* 1941; **98**:99-101.
- ⁴¹ Holloman CR. Mental health on the job: whose responsibility? *Business Horizons* 1976; **16**:73-80.
- ⁴² Robbins DB. The psychiatric patient at work. *Am J Public Health* 1976; **66**:655-9.
- ⁴³ Warshaw LJ, Phillips BJ. Mental health programs in occupational settings. In: McLean A, ed. *Mental health and work organisations*. Chicago: Rand McNally & Co, 1970.